Abstract

Troubled Bubbles: A Java 3D Game

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This report describes a Java 3D program called Troubled Bubbles. It is a single-player interactive 3D arcade-style bubble shooting game. My goals were to design and implement a game using the Java 3D API and Scene Graph Terminology, to incorporate animation for visual objects, and to demonstrate how a single player can interact with visual objects. The Java 3D Scene Graph Structure and Scene Graph Nodes will be described. I will also demonstrate how to include behaviors in the scene graph. In this paper, an incremental implementation of the Troubled Bubbles game will demonstrate how each part of the Java 3D API is used in the design and programming process. Despite the rich set of 3D features provided by Java 3D API, the Java 3D is still in beta test and contains significant technical bugs with respects to specific operating systems and memory management. There is no doubt that the Java 3D API will grow and become a robust 3D application programming interface.